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# A NEW GYPSOPHILIC *MENTZELIA* (LOASACEAE) FROM NUEVO LEÓN, MEXICO

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## ABSTRACT

**Mentzelia gypsophila** B.L. Turner, sp. nov., is described from gypseous soils near Mina, Nuevo León and Viesca, Coahuila. It is clearly closely related to *M. lindheimeri* Urb. & Gilg but differs in its annual habit, smaller flowers, and fewer stamens. A photo of the holotype is provided along with a distribution map of the two species concerned.
**KEY WORDS**: Loasaceae, *Mentzelia*, Mexico, Coahuila, Nuevo León

Routine identification of Mexican plants has brought to focus another previously undescribed species from the gypsum outcrops of northeastern Mexico.

**Mentzelia gypsophila** B.L. Turner, sp. nov. Fig. 1.

*Mentzeliae lindheimeri* Urb. & Gilg similis sed differt duratione annua (vs. perenni), floribus minoribus (petalis 5–6 mm longis vs. plerumque 8–15 mm), et staminibus paucioribus (10–20 vs 25 vel plus).

TYPE: **MEXICO. Nuevo León.** Mpio. Mina, northeast of Carricitos, gypsum ravine, 981 m, 17 Oct 2008, *Hinton et al. 28784* (holotype: TEX).

**Annual herbs,** 10-50 cm high. **Mid-stems** with spreading, both spiculate and espiculate, trichomes 0.2–0.8 mm long, these underlain by a vestiture of much more numerous shorter hairs ca. 0.1 mm high; petioles 0.5–2.5 cm long; blades ovate, irregularly serrate or lobed, moderately appressed-pubescent on both surfaces. **Flowers** mostly axillary along upper stems, sessile or nearly so. **Calyces** (flowering) 5–12 mm long; sepal lobes lanceolate, 5–6 mm long, pubescent like the stems. **Petals** 5–6 mm long, reportedly "yellow" or "orange." **Stamens** 10–20, ca 6 mm long; anthers yellow, ca 0.5 mm long. **Capsules** ca 1.5 cm long, 0.5 mm wide. **Seeds** obtrapezoidal, ca 2 mm long, 1.5 mm wide, markedly rugose, the surfaces ornamented throughout with parallel ridges.

Additional specimens examined: **MEXICO. Coahuila.** Mpio. Viesca, E of 5 de Mayo, 25.05157 N, 102.29176 W, gypsum ravine, 1508 m, 1 Oct 2006, *Hinton et al. 28508* (TEX-2 sheets).

Except for its seemingly annual habit and duration and smaller flowers, the present novelty much resembles *Mentzelia lindheimeri* Urb. & Gilg (including *M. texana* Urb. & Gilg; Turner 2002). At least six of the plants included in the type collection (Fig. 2) have delicate tap roots, these very unlike the woody tap roots of *M. lindhemeri.*

1. Annual; petals 5–6 mm long; stamens 10–20 ..... *Mentzelia gypsophila*
1. Perennial; petals mostly 8–15 mm long; stamens 25 or more ..... *Mentzelia lindheimeri*

According to Correll and Johnston (1970), *Mentzelia texana* (included within *M. lindheimeri* by my taxonomy) has petals 6-8 mm long and 25 stamens, but I was unable to confirm the shorter petals among the numerous specimens at LL-TEX. Indeed, my examination of 16 specimens of *M.*

*lindheimeri* from Mexico at LL-TEX showed the petals to vary from 8–15 mm in length and the stamens to be 30 or more. More telling, all of the Mexican sheets had strong, perennial taproots and none was collected on gypseous soils, so far as known.

The restriction of *Mentzelia gypsophila* to gypseous soils is especially noteworthy, hence its name. The type locality is well known for its edaphic endemics (Turner 2008). Distribution of the two taxa is shown in Fig. 2.

## ACKNOWLEDGEMENTS

I am grateful to my colleague Guy Nesom for the Latin diagnosis and for helpful comments on the paper itself. Distribution maps (Fig. 2) are based upon specimens on file at LL-TEX.

## LITERATURE CITED

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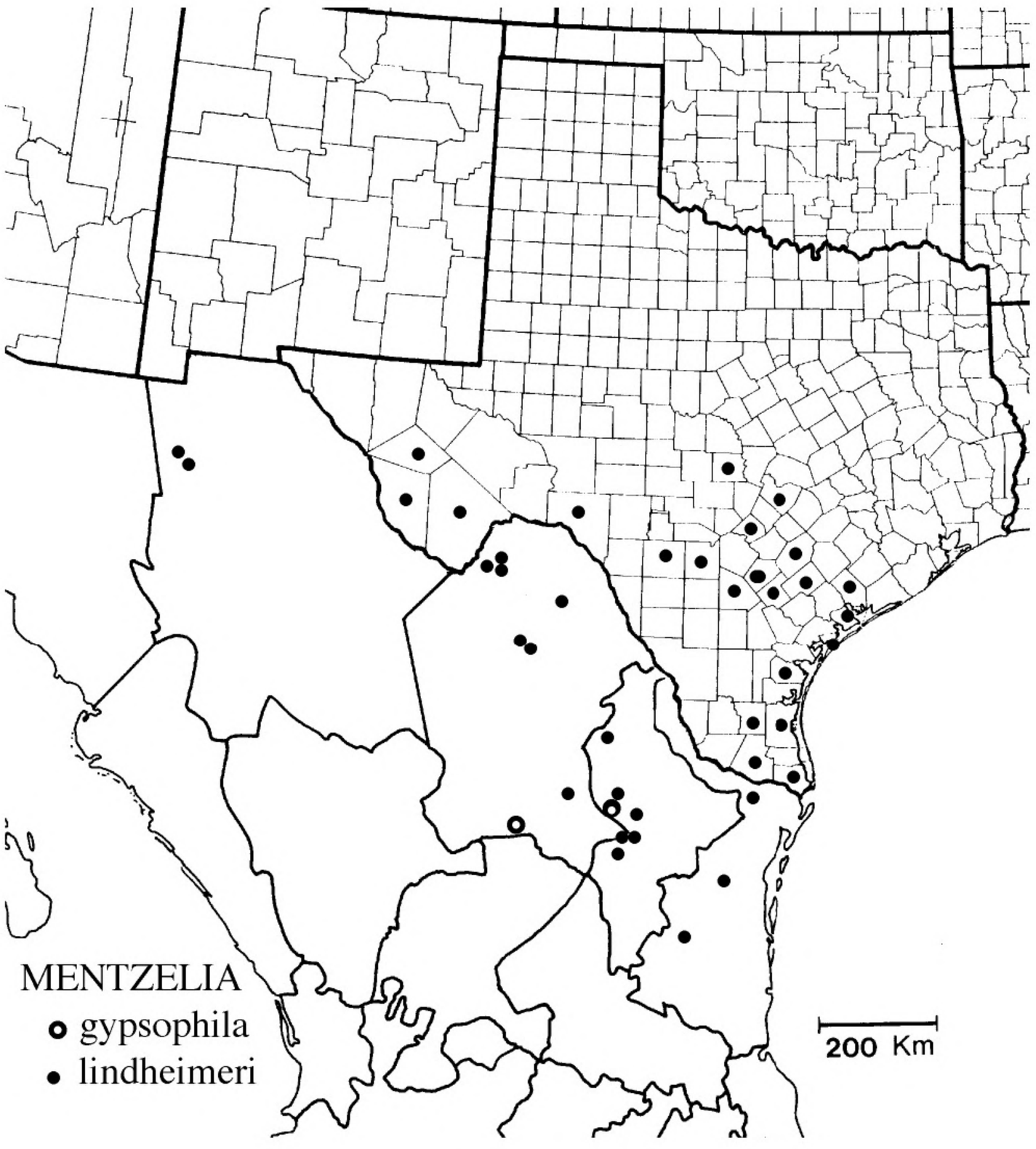


Figure 1. Distribution of *Mentzelia gypsophila* and *M. lindheimeri*.

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TEX
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0 1 2 3 4 5 6 7 8 9 10 cm
The University of Texas Herbarium (TEX)
Mentzelia gypsophila B.L. Turner
Det. B. L. Turner 2010
HOLOTYPE OF: mentzelia gypsophila B.L. Turner 2010
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HERBARIUM of G. B. HINTON No. 28784
Collected by Hinton et al. 2008.10.17
Northeast of Carricitos 981 m.
Mina, Nuevo León, México.
Gypsum ravine.
Fl. orange. 30 cm. Colony.

Figure 2. Holotype of *Mentzelia gypsophila*.